

**REMARKS**

This is a full and complete response to the Office action dated June 1, 2007.

All comments and remarks of record are herein incorporated by reference. Applicants respectfully traverse these rejections and all comments made in the Office Action. Nevertheless, in an effort to expedite prosecution, Applicants provide the following remarks regarding the cited references.

**SEQUENCE LISTING**

Applicants provide herewith a paper copy of the sequence and an amendment directing entry of the paper copy of the sequence listing into the application.

**DISPOSITION OF CLAIMS**

Claims 1-15 are pending in the application. Claims 1, 4, 9, 14 and 15 are amended for clarification. Support for claim 4 can be found in the application on page 3, lines 34-37. Claims 16 and 17 are canceled. No new matter has been added.

**REJECTION UNDER 35 USC §112, 1<sup>ST</sup> PARAGRAPH, WRITTEN DESCRIPTION**

Claims 16-17 stand rejected under 35 USC §112, first paragraph as failing to comply with the written description requirement. Applicants have canceled claims 16-17 thereby obviating the abovementioned rejection. Favorable action is solicited.

**REJECTION UNDER 35 USC §112, 1<sup>ST</sup> PARAGRAPH, WRITTEN DESCRIPTION**

Claims 1-4 and 7-8 also stand rejected under 35 USC §112, first paragraph, as lacking enablement. The Examiner alleges that while the specification is enabling for the claimed Δ6-desaturase activity in plants, alga, fungi or bacteria, does not reasonably provide enablement for expression of the claimed Δ6-desaturase in animals. Applicants respectfully traverse this rejection.

The test of enablement is whether one of reasonable skill in the art could make or use the claimed invention without undue experimentation. MPEP §2164.01(a). Applicants respectfully assert that one of skill in the art would understand that the present claims refer to animal cells, not whole animals. This is even more apparent in claim 4 which now recites “animal cells.” Applicants therefore respectfully assert that the instant claims are therefore fully enabled, and accordingly respectfully request that the above mentioned rejection be withdrawn.

REJECTION UNDER 35 USC §112, 2<sup>ND</sup> PARAGRAPH

Claims 1-10 and 13-17 stand rejected under 35 USC §112, second paragraph, as being indefinite. Applicants respectfully traverse this rejection.

The Examiner alleged that claims 1 and 9 are vague because it is unclear how a nucleic acid sequence can encode the precise amino acid sequence of SEQ ID NO:2 and any additional amino acid sequences which have at least 95% homology at the amino acid level to SEQ ID NO:2.

Applicants have amended claims 1 and 9 to now recite “SEQ ID NO: 2 or a polypeptide having at least 95% homology” for clarification. Accordingly, Applicants respectfully request the above mentioned rejection be withdrawn.

Furthermore, the Examiner alleged that claims 14-17 are vague because it is unclear how a nucleic acid sequence can have a percentage of the enzymatic activity of a protein (SEQ ID NO:2). Applicants have amended claims 14-15 to recite “SEQ ID NO: 1 and encodes a polypeptide having” for clarification. Moreover, claims 16-17 have been canceled. Accordingly, Applicants respectfully request the above mentioned rejection be withdrawn.

In order to facilitate the resolution of any issues or questions presented by this paper, the Examiner is invited to directly contact the undersigned by phone to further the discussion.

The undersigned representative requests any extension of time that may be deemed necessary to further the prosecution of this application.

The undersigned representative authorizes the Commissioner to charge any additional fees under 37 C.F.R. 1.16 or 1.17 that may be required, or credit any overpayment, to Deposit Account No. 14-1437.

**Conclusion**

Having addressed all issues set out in the Office action, Applicants respectfully submit that the claims are in condition for allowance and respectfully request that the claims be allowed.

Respectfully submitted,  
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